



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,474	08/05/2003	Donald R. Loveday	1999U026.US-CON2	6827

25959 7590 03/12/2004

UNIVATION TECHNOLOGIES LLC
5555 SAN FELIPE, SUITE 1950
HOUSTON, TX 77056

EXAMINER

PASTERCZYK, JAMES W

ART UNIT PAPER NUMBER

1755

DATE MAILED: 03/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/634,474	LOVEDAY ET AL.	
	Examiner	Art Unit	
	J. Pasterczyk	1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8/5/03</u> . | 6) <input type="checkbox"/> Other: ____ |

Art Unit: 1755

1. This Office action is in response to the IDS filed 8/5/03.
2. The abstract of the disclosure is objected to because it has plenty of space for the structures of the two compounds which are required to be with the metallocene as the catalyst. Also, the other metal compound is mandatorially a metallocene, not preferably. Correction is required. See MPEP § 608.01(b).
3. The specification should be updated to reflect the status of all US applications cited therein.
4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 1755

5. Claims 1-22 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 6,271,323. Although the conflicting claims are not identical, they are not patentably distinct from each other because the allowed and issued claims are merely broader in their initial recitation of the identities of the group 15 atom containing metal compounds, with the preferred ones in its dependent claims being identical to those of the present application's independent claim.

6. Claims 1-22 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-21 of U.S. Patent No. 6,274,684. Although the conflicting claims are not identical, they are not patentably distinct from each other because the allowed and issued claims are merely broader in their initial recitation of the identities of the group 15 atom containing metal compounds, with the preferred ones in its dependent claims being identical to those of the present application's independent claim.

7. Claims 1-22 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The presence of a cocatalyst is critical or essential to the practice of the invention, but it is not included in the claim(s) and thus the disclosure is not enabled. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). The specification discloses that the presence of a cocatalyst is required for the claimed polymerization process to actually work; however, the claims omit any recitation of the presence of such a cocatalyst.

8. Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 1755

In claim 1, l. 2 and 6 insert --element-- after “Group 15”. The limitation of l. 4-5 does not appear to be required by the structure of the compounds recited but instead would be achievable simply by dint of the fact that the polymerization reaction of each of the two compounds would have a different activation energy and different kinetic profiles, hence it is not clear what specifically is responsible for the physical effect of this limitation, what if anything structurally about the compounds is responsible for the physical effect. In l. 20-21 it is not clear whether the elements recited are the atoms or groups containing the atoms, particularly since if they were the atoms alone there would be dangling valences. In l. 21 and 27 insert --directly-- after “interconnected”. In l. 21 and 30 insert --or-- after “a halogen,”. In l. 21, when the two R groups are interconnected to each other, apparently they must be more than divalent as currently required by their being bridging groups between L and Y/Z, although their valence is not at all noted. Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term “Y” in claims 1, 2 and 4 is used by the claim to mean “group 15 element”, while the accepted meaning is “yttrium.” The term is indefinite because the specification does not clearly redefine the term.

In claim 2 insert --or-- after the first “a heteroatom,”.

In claim 3, l. 2, add the proper superscripted numerals to the R group, and in the last line change “the” to --said-- for clarity.

Art Unit: 1755

In claim 6, change "into the reactor alkane as a solution" to --into the reactor as an alkane solution--.

In claim 8, insert --the group consisting of-- after "selected from".

Claims 9-16 recite properties or structures of the polymer produced without including the necessary conditions of the polymerization process to necessarily result in the recited properties or structures. This amounts to a missing process step or condition which leaves the claims not enabled.

In claim 10 change "high" and "low" to --higher-- and --lower-- since these terms are comparative to each other rather than absolute on some undefined scale.

In claim 18 insert --catalyst-- after "metallocene" for proper antecedent basis.

In claim 20 insert --ratio-- after " C_x/C_2 " for clarity.

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

10. Claims 1-22 are rejected under 35 U.S.C. 102(a) as being anticipated by Japanese patent application JP-10-330412 (hereafter referred to as Sugimura).

Sugimura discloses the invention as claimed (abstract; p. 2, col. 1, l. 20 of the Japanese document; p. 5, col. 7, l. 30).

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 1755

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugimura as cited above in view of each of Schrock et al., USP 5,889,128 (hereafter referred to as Schrock), McConville et al., USP 6,271,325 (hereafter referred to as McConville) and Liang et al., J.Am.Chem.Soc., vol. 121, no. 24, pp. 5797-5798 (1999).

The disclosure of Sugimura has been discussed above.

Sugimura lacks disclosure of different group 15 element transition metal compounds being used in conjunction with a metallocene compound in an olefin polymerization process.

However, each of Schrock (col. 6 bottom to col. 7 top), McConville (col. 2, l. 8-54), and Liang (end of first paragraph; figure 1) teaches that such other preferred compounds of the present claims is usable in an olefin polymerization process.

It would have been obvious to one of ordinary skill in the art to apply the teachings of any of Schrock, McConville, or Liang to the disclosure of Sugimura with a reasonable expectation of obtaining a highly-useful olefin polymerization process with the advantage of the process providing block copolymers of low polydispersities.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Pasterczyk whose telephone number is 571-272-1375. The examiner can normally be reached on M-F from 9 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell, can be reached at 571-272-1362. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1755


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



J. Pasterczyk

AU 1755

3/10/04



Mark L. Bell
Supervisory Patent Examiner
Technology Center 1700